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10/034,952	12/27/2001	Jacques Debiez	2001-072-TOU	9352

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EXAMINER

PYZOCHA, MICHAEL J

ART UNIT	PAPER NUMBER
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2137

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/034,952

Applicant(s)

DEBIEZ ET AL.

Examiner

Michael Pyzocha

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-13 is/are rejected.
- 7) ☒ Claim(s) 7 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Claims 1-13 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 4-6, and 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer (US 5001752) in view of Hasebe et al. (US 7000114) and further in view of Mincher et al. (US 5408506).

As per claim 1, Fischer discloses private time; a private time source in the form of a local running clock and indicating a published time source in the form of a local running clock and indicating a published time; at least one power supply arranged to power the private time source and the published time source (see figures 1 and 5 and column 3 line 58 through column 4 line 27); and control logic programmed to perform a time stamping operation by receiving a message, appending the published time

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to the message to create a timestamp, and digitally signing the timestamp with a private key (see column 6 lines 9-57).

Fischer fails to disclose a method of updating the published time using a trusted external time source and verifying the difference between the updated value and the current value is within a predetermined value.

However, Hasebe et al. teaches a published time source update by sending a request to the trusted external time source for a published time update (see column 11 lines 43-60), receiving a reply from the trusted external time source including the published time update, updating the published time with the published time update (see column 11 line 61 through column 12 line 27) and Mincher et al. teaches updating a clock value if an update condition is satisfied, wherein the update condition is based in part on a time difference between the private time and the published time update (see column 3 lines 50-63).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to update the clock of Fischer using the methods put forth by Hasebe et al. and Mincher et al.

Motivation to do so would have been to verify the update is from the trusted time source (see Hasebe et al. column 11 line

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61 through column 12 line 27) and to handle errors caused by the difference between the current clock value and the update value (see Mincher et al. column 3 lines 50-63).

As per claim 2, the modified Fischer, Hasebe et al. and Mincher et al. system discloses a printed circuit board including a connector for connecting to a bus of a computer, wherein the private time source, the public time source, the at least one power supply, and the control logic are mounted to the printed circuit board (see Fischer figures 1 and 5).

As per claim 4, the modified Fischer, Hasebe et al. and Mincher et al. system discloses the control logic is programmed to perform the published time source update at least once per month (see Hasebe et al. column 12 lines 28-41). As described by Hasebe et al., the time updates can occur at any prescribed regular time interval.

As per claims 5, 11, and 12, the modified Fischer, Hasebe et al. and Mincher et al. system discloses the update condition is not satisfied when the time difference is greater than a predetermined value (see Mincher et al. column 3 lines 50-63), but fails to explicitly disclose this value being 6 hours. However, Fischer discloses checking a time different and if this difference is greater than a few milliseconds per day then to give an error (see column 4 lines 2-9). Since 6 hours is

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greater than a few milliseconds and would cause an error the modified Fischer, Hasebe et al. and Mincher et al. system discloses the limitations of claim 5.

As per claim 6, the modified Fischer, Hasebe et al. and Mincher et al. system discloses updating the published time with the published time update in a manner that is based on a time different between the published time and the published time update (see Mincher et al. column 3 lines 50-63).

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Fischer, Hasebe et al. and Mincher et al. system as applied to claim 2 above, and further in view of Esker (US 6236277).

As per claim 3, the modified Fischer, Hasebe et al. and Mincher et al. system fails to disclose the use of crystal oscillators to stabilize the time sources.

However, Esker teaches such crystal oscillators (see column 7 lines 3-11).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use crystal oscillators to stabilize the time sources of the modified Fischer, Hasebe et al. and Mincher et al. system.

Motivation to do so would have been that a crystal oscillator is a common way of efficiently maintaining a clock.

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5. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Fischer, Hasebe et al. and Mincher et al. system as applied to claim 1 above, and further in view of Watson (US 6775704).

As per claims 9 and 10, the modified Fischer, Hasebe et al. and Mincher et al. system fails to disclose the update condition is further based on an elapsed time between sending the request and receiving the reply.

However, Watson teaches checking this time delay (see column 7 lines 29-32).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to include the verification of the time delay of the response in the modified Fischer, Hasebe et al. and Mincher et al. system.

Motivation to do so would have been to protect the system against replay attacks.

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Fischer, Hasebe et al. and Mincher et al. system as applied to claim 1 above, and further in view of Terao (US 6651167).

As per claim 13, the modified Fischer, Hasebe et al. and Mincher et al. system fails to explicitly disclose the circuit board is encapsulated in a tamperproof enclosure.

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However, Terao teaches such an enclosure (see column 7 lines 2-11).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to enclose the modified Fischer, Hasebe et al. and Mincher et al. system circuit board in a tamperproof enclosure.

Motivation to do so would have been to make the system more secure.

Allowable Subject Matter

7. Claims 7 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to teach using different methods of updating a time source based on the difference between two time values and the difference being explicitly 5 seconds.

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Response to Arguments

9. Applicant's arguments submitted with the Pre-Appeal request have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Byrd, Dolev, Walsh, Teppler, Couillard, Audebert, and Schneier disclose methods of updating time sources.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Pyzocha whose telephone number is (571) 272-3875. The examiner can normally be reached on 7:00am - 4:30pm first Fridays of the bi-week off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MJP


EMMANUEL L. MOISE
SUPERVISORY PATENT EXAMINER